National Weather Service Midland/Odessa, Texas

Announces Fire Weather Zone Changes for Southwest Texas and Southeast New Mexico

Across southwest Texas and southeast New Mexico, terrain makes a very significant contribution to the variance of weather conditions on any given day. Elevation has a significant impact on temperatures (generally decreasing with height), winds (often increasing significantly with height) and moisture (which may increase or decrease significantly with elevation). Additionally, when wind blows upslope, fog and precipitation may be produced or enhanced.

As part of a continuing effort to bring the best weather and forecast information to the residents of this area, the NWS Midland/Odessa Forecast Office proposes to change the structure of our fire weather zones to better reflect the unique influences of the terrain, specifically elevation, on our weather. This involves dividing zones in such a way to accurately reflect both higher elevations (Guadalupe Mountains, Delaware Mountains, Davis Mountains, Chinati Mountains and the Chisos Basin) as well as the lower elevations, where temperatures are often much warmer, along the Rio Grande River. Where possible the fire weather zones will be aligned to match the public zone boundaries which were updated April 2, 2019. The existing zone configuration is shown in ***Figure 1***.

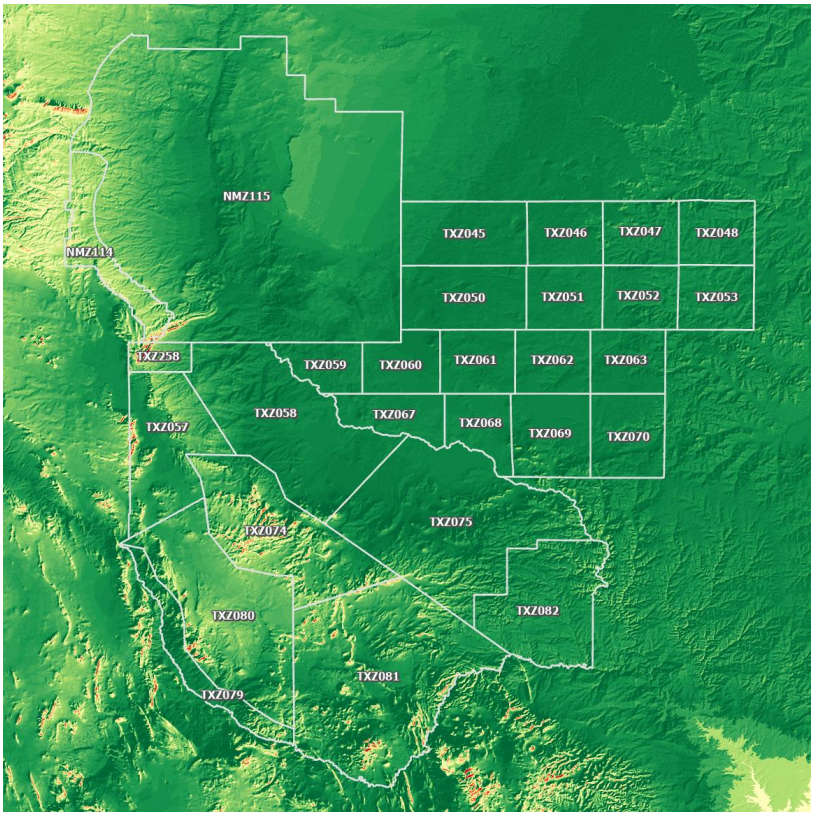

Figure 1: Current fire weather zones prior to March 3, 2020, depicting course alignment of zones with terrain in southwest Texas and southeast New Mexico.

These changes to our fire weather zones will allow us to create fire weather zone-based forecast products that more accurately reflect expected conditions and allow better consistency between point forecasts and forecast weather hazards. For instance, it is currently possible for a Red Flag Warning intended to cover the higher elevations of zone TXZ058 due to higher winds to be misconstrued to include the city of Pecos, where winds at a lower elevation may not be sufficient to meet Red Flag criteria. Likewise, zone NMZ115 is currently large and covering a large enough range of elevations that conditions may vary widely within that zone, while smaller zones would better capture the expected weather conditions in each smaller area. Many other similar situations are possible across our forecast area. Though this inconsistency cannot be completely eliminated across all zones at all times, we believe that the proposed fire weather zone changes will greatly decrease these occurrences, resulting in better service to the public and our partners.

The proposed fire weather zone changes will become effective on March 3, 2020.

The affected current fire weather zones are highlighted in ***Figure 2***. The proposed new zones are shown in ***Figure 3***.

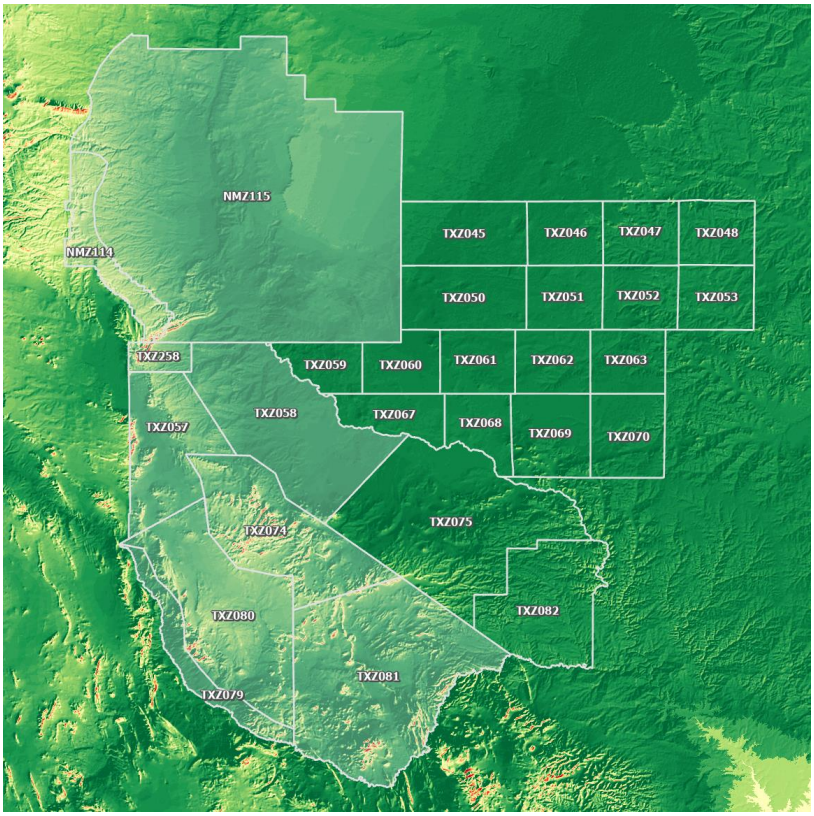

Figure 2: Fire weather zone configuration prior to March 3, 2020. Zones to be redefined are highlighted.

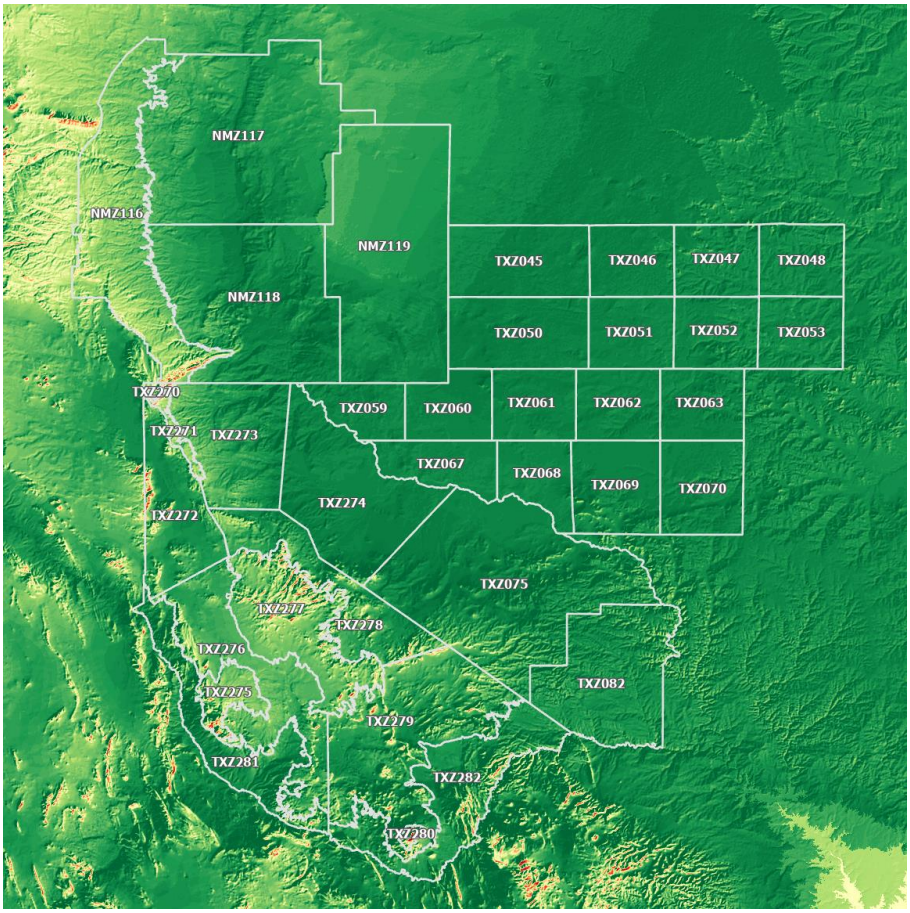

Figure 3: Proposed new fire weather zone configuration to become effective March 3, 2020. Note the alignment of new zones to elevation.

NMZ116	Sacramento Foothills and Guadalupe Mountains
NMZ117	Chavez Plains (below 4500 ft)
NMZ118	Lea
NMZ119	Eddy Plains (below 4500 ft)
TXZ270	Guadalupe Mountains Above 7000 Feet
TXZ271	Guadalupe and Delaware Mountains (above 5,000 ft)
TXZ272	Van Horn and Highway 54 Corridor (between 3,000 ft and 5,000)
TXZ273	Eastern Culberson County (below 5,000 ft)
TXZ274	Reeves County Plains
TXZ275	Chinati Mountains (above 5,000 ft)
TXZ276	Marfa Plateau (between 4,000 ft and 4,800 ft (Davis) and 5,000 ft (Chinati))
TXZ277	Davis Mountains (above 4,800 ft)
TXZ278	Davis Mountains Foothills (below 4,800 ft)
TXZ279	Central Brewster County (between 3,000 ft and 4,800 (Davis) and < 4,500 (Chisos))
TXZ280	Chisos Basin (above 4,500 ft)
TXZ281	Presidio Valley (below 4,000 ft)
TXZ282	Lower Brewster County (below 3,000 ft)

Table 1: Proposed fire weather zone numbers, names and elevation designations to become effective March 3, 2020.